Critical Design Review

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Presentation Overview
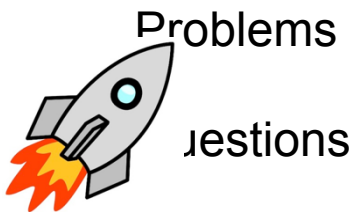
Hardware Block Diagram

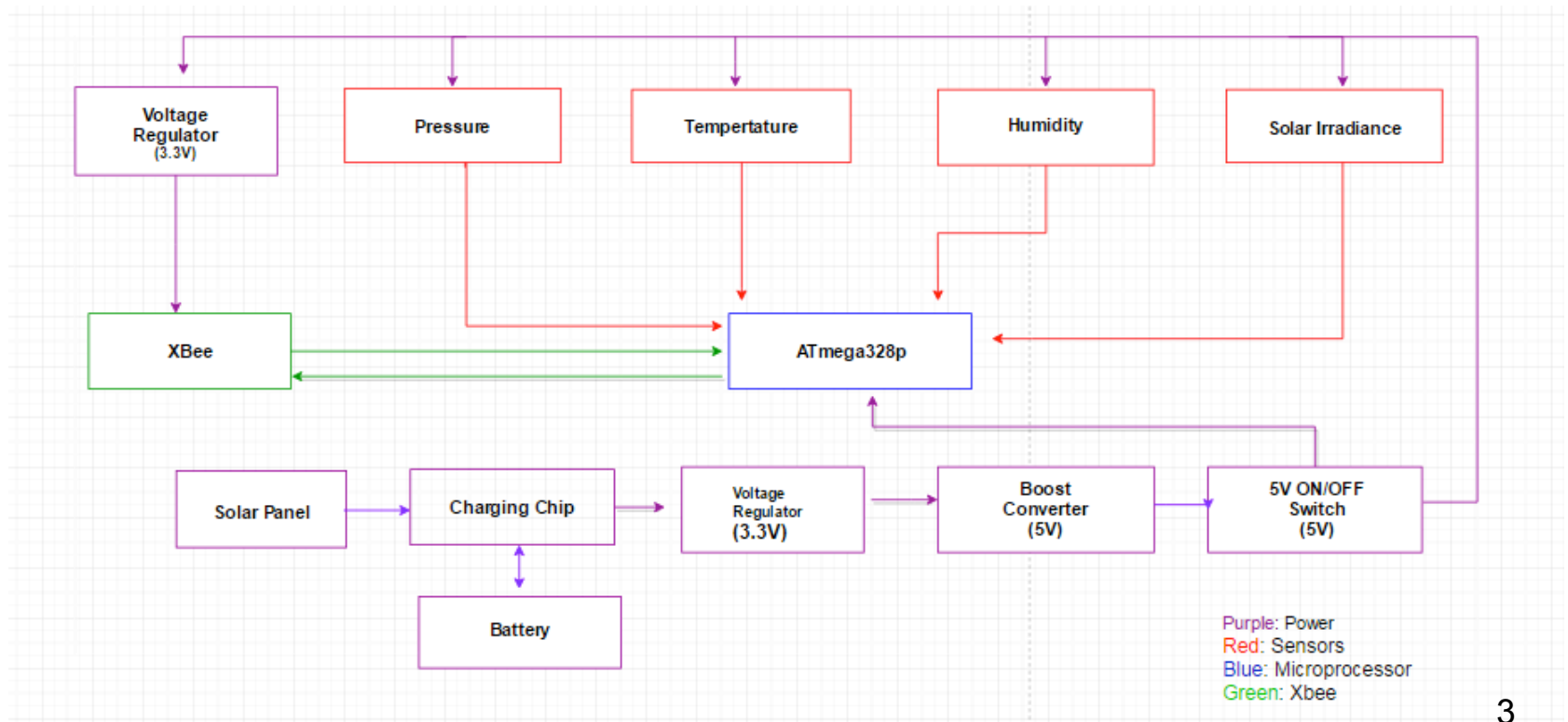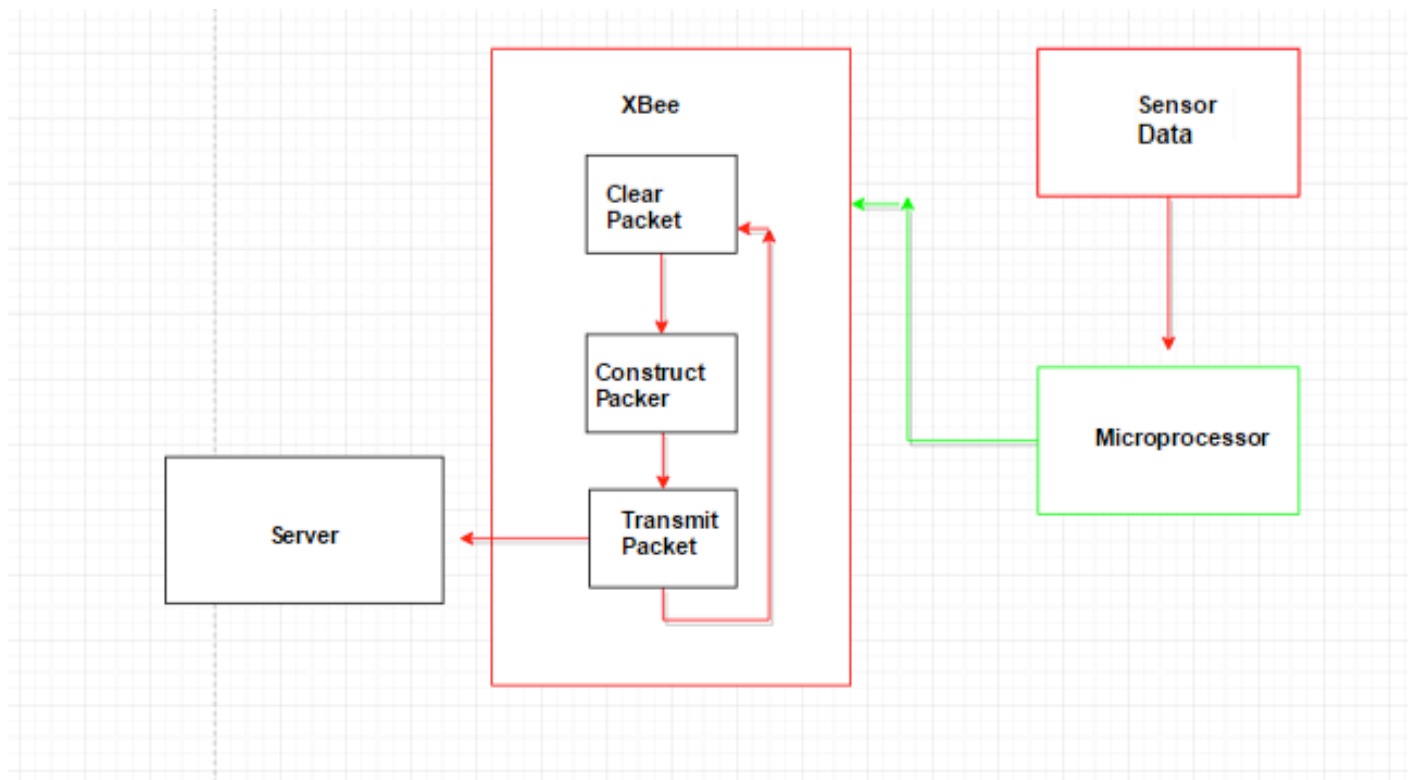Software Block Diagram

Firmware Algorithm

Team Progress

Remaining Work

Problems

Questions

Hardware Block Diagram

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Software Block Diagram

Firmware Algorithm

Initialize Packet, Sensors, and Xbee.
Loop Routine
        Construct Packet
                        Pull sensor data
                        Pack sensor data
        Increment the amount of polls
        If amount of polls equals to 60
                Transmit the packet
                        Clear the packet
                        Clear amount of polls
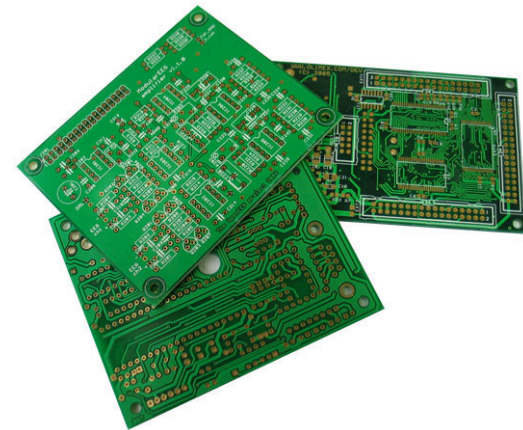
Team Progress

Finished and tested sensor code.

Finished and tested transmit code.

1st draft of PCB board design.

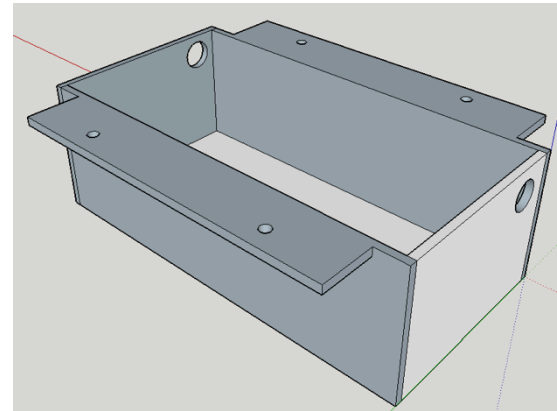1st draft of housing design.

Sketchup.

Remaining Work

Write and test driver file.

Finalize PCB design and print.

Finalize housing design and print.

Problems

Solar irradiance sensor getting wrong values.

   Solution: Data sheet was wrong. Switched the pins on the sensor.

Could not transmit packets to Coordinator Xbee.

   Solution: Switch around the Rx and Tx lines going from the Xbee to the microcontroller.

PCB design routing

   Solution: rerouting and moving parts

Any questions?